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	First Named Inventor	Lockhart				
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	Attorney Docket No:	018547-019420US				
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US PATENT DOCUMENTS							
Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	Filing Date If Appropriate	

FOREIGN PATENT DOCUMENTS						
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	OTHE	R DOCUMENTS - NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No 1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	1
Un		PANKIEWICZ, K.W., et al., "Selective Methylation of the C-Nucleoside, ψ-Isocytidine and its 2'-Deoxy Analog. Synthesis of 1-Methyl, 3-Methyl and 4-O-Methyl Derivatives", Tetrahedron, Vol. 40, No. 1, (1984), pp. 33-38	

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DATE CONSIDERED /1/19/03

INFORMATION DISCLOSURE STATEMENT BY APPLICANT mplete il Knom **Application Number** 09/880,727 Filing Date June 13, 2001 First Named Inventor Lockhart AUS 1 5 2003 1637 **Group Art Unit Examiner Name** Jezia Riley 018547-019420US Attorney Docket No: Sheet 1 of 9

		US P	ATENT DOCUMENT	S			
Examiner Initial	USP Document Number	Publication Date	Name of Palentse or Applicant of cited Document	Class	Subclass	Filing Date # Appropriate	
the	US-3,352,849	11/14/1967	Shen, T., et at	260	211.5	10/24/1965	
Va	US-3,817,837	06/18/1974	Rubenstein, et al	195	103.5 R	11/06/1972	
M	US-3,850,752	11/26/1974	Schuurs, et al	195	103.5 R	10/29/1971	
M	US-3,891,623	06/24/1975	Vorbruggen, H., et al	260	211.5 R	05/03/1972	
Con	US-3,939,350	02/17/1976	Kronick, M. N., et al	250	365	04/29/1974	
011	US-3,998,345	12/07/1976	Uliman, E. F., et al	424	12	06/30/1975	
//2	US-4,275,149	06/23/1981	Litman, D. J., et al	435	7	11/24/1978	
124		07/07/1981	Maggio, E. T.	422	61	12/10/1979	
14,	US-4,366,241	12/28/1982	Torn, H. K., et al	435	7	08/07/1980	1 4
Mu	US-4,594,339	06/10/1986	Lopez, C., et al	514	42	06/18/1984	
114	US-4,981,783	01/01/1991	Augenlicht, L.	435	6	04/16/1986	
M	US-4,997,928	03/05/1991	Hobbs Jr., F. W.	536	27	09/15/1988	
114	US-5,002,887	03/26/1991	Macevicz, S.C.	435	6	10/24/1988	Λ'
· KN	US-5,143,854	09/01/1992	Pirrung, , et ai	436	518	03/07/1990	
M	US-5,151,507	09/29/1992	Hobbs Jr., F. W., et al	536	23	06/12/1991	
M	US-5,202,231	04/13/1993	Drmanac, R.T., et al	435	6	06/18/1991	
14	US-5,242,796	09/07/1993	Prober, J. M., et al	435	6	10/22/1991	\\ \\
1/4	US-5,262,536	11/16/1993	Hobbs Jr., F. W.	546	25	12/05/1990	A
m	US-5,324,633	06/28/1994	Fodor, S.P., et al	435	6	11/22/1991	72
W	US-5,332,666	07/26/1994	Prober, J. M., et al	435	91.5	10/22/1991	4
1/4	US-5,422,241	06/06/1995	Goldrick, M., et al	435	6	07/03/1991	2 0
00	US-5,424,188	06/13/1995	Fodor, S. P.A., et al	435	6	12/06/1991	S. 17
1/4	US-5,445,934	08/29/1995	Fodor, S.P.A., et al	435	6	09/30/1992	2 1
nh	US-5,543,292	08/06/1996	Imai, K., et al	435	6	06/14/1993	
M	US-5,571,639	11/05/1996	Hubbel E.A., et al	430	5	05/24/1994	AECEW TO THE TENTON
M	US-5,608,063	03/04/1997	Hobbs Jr., F. W., et al	544	244	03/28/1995	
w	US-5,744,305	04/28/1998	Fodor, S. P.A., et al	435	6	08/08/1995	
M	US-6,174,998	01/16/2001	Muhlegger, K., et al	536	4.1	09/15/1997	AECENTO AND
m	US-6,211,158	04/03/2001	Seela, F., et al	514	44	06/26/1992	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

	FOREIGN PATENT DOCUMENTS							
Examiner Initiats*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	Class	Subclass	T ²		
9/1	DE-19509038	09/19/1996	Muhlegger, K.	C07	19/08			
h	EN-0721016	07/10/1998	Lockhart, D. , et al	C12 Q	1/68			

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		FOREIGN PATEN				
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of clied Document	Class	Subclass	۲,
Ry	EP-0132621	02/13/1985	Shirashi, H. , et al	C12 Q	1/68	
ly	EP-0159719	10/30/1985	Rabbani, E. , et al	C12	1/68	
1/4	EP-0252683	01/13/1988	Prober, J., et al	C07 H	21/04	
M	EP-0266787	05/11/1988	Epplen, J.	C12	1/68	
U	EP-0320308	06/14/1989	Backman, K., et al	C12 Q	1/68	
n	EP-0322311	06/28/1989	Kronick, M., et al	C12	1/68	
24	EP-0336731	10/11/1989	Wallace, B.	C12 Q	1/68	
14	EP-0535242	04/07/1993	Khrapko, K., et al	C12 Q	1/68	
Mu	EP-0717113	06/19/1996	Chee, M., et al	C12 Q	1/68	
M	JP-61-109797	05/23/1986	Sugimoto, S., et al	C07	19/04	
M	WO-00/06771	02/10/2000	McGall, G. H., et al	C12 Q	1/68	
1/1	WO-89/10977	11/16/1989	Southern, E.	C12 Q	1/68	
Ca	WO-90/00626	01/25/1990	Beattle, K.	C12	1/68	
M	WO-90/03370	04/05/1990	Petrie, C. R., et al	C07	239/00	
Va	WO-90/04652	05/03/1990	Macevicz, S.	C12 Q	1/68	50
1/W	WO-90/15070	12/13/1990		C07K	1/04	*
m	WO-92/02258	02/20/1992	Cook, P. D., et al	A61K	48/00	7
W	WO-92/10092	06/25/1992	Fodor, S. P.A., et al	A01N	1/02	
PA	WO-92/10588	06/25/1992	Fodor, S., et al	C12 Q	1/68	7
Pa	WO-93/16094	08/19/1993	Whitlock, T. W.	C07	21/00	
M	WO-93/17126	09/02/1993	Chetverin, A., et al	C12	1/68	
M	WO-95/00530	05/25/1992	Fodor, , et al	1		
M	WO-95/04594	02/16/1995		B01L	3/00	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT Application Number 09/880,727 June 13, 2001 Filing Date First Named Inventor Lockhart AUG 1 5 2003 1637 **Group Art Unit** Examiner Name Jezia Riley & TRADER Attorney Docket No: 018547-019420US Sheet 3 of 9

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentue or Applicant of cited Document	Class	Subclass	T	
Ru	WO-95/04833	02/16/1995		C12 Q	1/68		
Re	WO-95/04834	02/16/1995		C12 Q	1/682		
n	WO-95/11995	05/04/1995	Chee, , et al	C12 Q	1/68		
New	WO-95/20681	08/03/1995		C12 Q	1/68		
24	WO-95/30774	11/16/1995		C12 Q	1/68		
Ru	WO-95/35505	12/28/1995		G01 N	33/543		
Uli	WO-95/28460	09/19/1996	Muhlegger, K., et al	C07 H	21/00		
Pu	WO-97/10365	03/20/1997	Lockhart, D. J.	C12 Q	1/68		
Ne	WO-97/27317	07/31/1997		C12 Q	1/00		
Pu	WO-97/28176	08/07/1997	Brown, D., et al	C07 H	19/044		
M	WO-97/29212	08/14/1997		C12 Q	1/68		
Mu	WO-97/39120	10/23/1997	Chaudhary, N., et al	C12 N	15/11		
Cu	WO-98/11104	03/19/1998		C07	405/04		

	OTHE	R DOCUMENTS - NON PATENT LITERATURE DOCUMENTS	7
Examiner Initials*	Cite No 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-tasue member(s), publisher, city and/or country where publisher.	14
M		AKITA, Y,et al., "Cross-Coupling Reaction of Chloropyrazines with Acetylenas", Chemical & Pharmaceutical Bulletin, 34 (4), (April 1986),pp. 1447-1458	
Ca		AOYAGI, M.,,et al., "Nucleosides and Nucleotides. 115. Synthesis of 3-Alkyl-3-Deazainosines via Palladium-Catalyzed Intramolecular Cyclization: A New Conformational Lock with the Alkyl Group at the 3-Position of the 3-Deazainosine in Anti-Conformation", Tetrahedron Letters, 34 (1), (1993),pp. 103-106	
M		AVILA, JL., et al., "Biological Action of Pyrazolopyrimidine Derivatives Against Trypanosoma Cruzi. Studies in Vitro and in Vivo", Comp. Biochem. Physiol., 86C (1), (1987),pp. 49-54	
114		BARRINGER, et al., "Blunt-end and single-strand ligations by Escherichia coli	

EXAMINER DATE CONSIDERED 1/1/9/03

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E puo	Examiner Name	Jezia Riley	
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		R DOCUMENTS - NON PATENT LITERATURE DOCUMENTS]		
Examiner Initials*	Cite No '	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposhum, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	10	}		
M		ligase: influence on an in vitro amplification scheme", <u>Gene, 89</u> , (1990),pp. 117-122				
a		BASNAK, I.,et al., "Some 6-Aza-5-Substituted-2'-Deoxyuridines Show Potent and Selective Inhibition of Herpes Simplex Virus Type 1 Thymidine Kinase", Nucleosides & Nucleotides, 17 (1-3), (1998),pp. 187-206				
a		BEABEALASHVILLI, RS., et al., "Nucleoside 5'-triphosphates modified at sugar residues as substrates for calf thymus terminal decoynucleotidyl transferase and for AMV reverse transcriptase", <u>Biochlmica et Biophysica Acta, 868</u> , (1986),pp. 138-144				
Me		BERGERON,et al., "Reagents for the stapwise functionalization of spermine", J. Org. Chem., 53, (1998),pp. 3108-3111				
M		BERGSTROM, DE., et al., "Design and Synthesis of Heterocyclic Carboxamides as Natural Nucleic Acid Base Mimics", <u>Nucleosides & Nucleotides</u> , 15 (1-3), (1996),pp. 59-68				
Pa		BOBEK, M., et al., "Nucleic Acids Components and their Analogues. XCVII. Synthesis of 5-Hydroxymethyl-6-Aza-2'- Deoxyurldine and 5-Hydroxymethyl-6-Aza-2'-Deoxycytidine", Collection Czechoslov. Chem. Commun 32, (1967).pp. 3581-3586		l L		
W		BRODY, RS., et al., "The Purification of Orotidine-5'-phosphate Decarboxylase from Yeast by Affinity Chromatography", The Journal of Biological Chemistry, 254 (10), (1979),pp. 4238-4244				
M		BROUDE, N.E,et al., "Enhanced DNA sequencing by hyridization", PNAS, 91, (1994),3072-3076				
M		CANARD, B., et al., "Catalytic editing properties of DNA polymerases", PNAS, 92, (nov. 1995),pp. 10859-10863				
Pu		CECH, D., et al., "New Approaches Toward the Synthesis of Non-Radioactively Labelled Nucleoside Triphosphates as Terminators for DNA Sequencing", Collect. Czech, Chem. Commun., 61, Special Issue, (1996), pp. S297-S300		世		П
M		CHEE, M., et al., "Accessing Genetic Information with High-Density DNA Arrays", Science, 274, (Oct. 25, 1996),pp. 610-814		E	B	M
M		CHERNETSKII, VP., et al., "Anomalous nucleosides and related compounds. XIV. Derivatives of 6-azacytidine.", Chemical Abstracts, 74 (21), Abstract No. 112367],(1971),		TECH CENTER	AUG 1 \$ 7003	RECEIVED
P		CHIDGEAVADEZ, ZG., et al., "2", 3" -Dideoxy-3" aminonucleoside 5"- triphosphates are the terminators of DNA synthesis catalyzed by DNA polymerases", Nucleic Acids Research, 12 (3), (1984), pp. 1671-1686			າ ນີນ	משל
14		CHU,et al., "General Synthesis of 2', 3' -dideoxynucleosides and 2', 3' -didehydro-2', 3' -dideoxynucleosides", J. Org. Chem., 54, (1989),pp. 2217-2225			,	
M		COTTAM, HOWARD.B., et al., "New Adenosine Kinase Inhibitors with Oral Antiinflammatory Activity: Synthesis and Biological Evaluation", Journal of Medicinal Chemistry, 36 (22), (Oct. 29, 1993),pp. 3424-3430				

EXAMINER DATE CONSIDERED 11/19/03

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		R DOCUMENTS - NON PATENT LITERATURE DOCUMENTS			
Examiner initials*	Cite No 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journel, serial, symposium, catalog, etc.), date, page(x), volume-lastic number(s), publisher, city and/or country where published.	4		
Re		CURRIDEN, M., "A New Evidence Tool - First Use of Mitochondrial DNA Test in			
	ļ	a U.S. criminal trial", ABA Journal, (Nov. 1996),1 p.	├ ──┤		
Me		DANSHCER, et al., "Autometallographic silver amplification of colloidal gold", <u>J.</u> Histotech., 16, (1993),pp. 201-207			
	 	DEPELLEY, J., et al., "New Non-Aromatic Triazinic Nucleosides: Synthesis and	 		
11		Antiretroviral Evaluation of Beta-Ribosylamine Nucleoside Analogs", Nucleosides	l i		
Ru		& Nucleotides, 15 (5), (1996),pp. 995-1008			
	ļ	DUEHOLM,et al., "2,3-dideoxy-furanoses in convergent synthesis of 2',3'-	-		
U		dideoxy nucleosides", Synthesis, (1992),pp. 1-22] -		
<u>uu</u>		EDO, K., et al., "Studies on Pyrimidine Derivatives. IX. Coupling Reaction of			
1		Mono-substituted Acetylenes with lodopyrtmidines", Chemical & Pharmaceutical	[
Ju		Bulletin, 26 (12), (Dec. 1978),pp. 3843-3850			
		EGGERS, M., et al., "A Microchip for Quantitative Detection of Molecules Utilizing	-		
a	İ	Luminescent and Radioisotope Reporter Groups*, BioTechniques, 17 (3),			
· CC	}	(1994),516-525			
73,	 -	FELDMAN, W., et al., "Gray Code Masks for Sequencing by Hybridization",	 		
! U	ŀ	Genomics, 23, (1994),233-235			
1.		FODOR, et al., "Light-directed, spatially addressable parallel chemical synthesis",			
14	1	Science, 251, (1991),767-773	i		
		FRESKOS, JN., "Synthesis of 2'-Deoxypyrimidine Nucleosides Via Copper (I)			
- Mu		lodine Catalysis", Nucleosides & Nucleotides, 8 (4), (1989),pp. 549-555			
1		GALUSHKO, SV. ,et al. ,"Relationship between retention parameters in			
M		reversed-phase high-performance liquid chromatography and antitumour activity	1	ļ	
' W		of some pyrimidine bases and nucleosides", Journal of Chromatography, 547,			
		(1991),pp. 161-166		i	
M		GALUSHKO, SV., et al., "Reversed-phase HPLC of N4-and O'-derivatives of 6-			
: W		azacytidine", Chemical Abstracts, 111 (26), Abstract No. 243960u,(1990),	<u> </u>		
Ω .		GRZYBOWSKI, J,et al., "Synthesis and antibody-mediated detection of	Ι,		
1/4		oligonucleotides containing multiple 2,4-dinitrophenyi reporter groups", Nucleic	نئير [R.	71
		Acids Research, 21 (8), (1993),pp. 1705-1712		<u> </u>	<u> </u>
	ł	GUATELLI, et al., "leethermal, in vitro emplification of nucleic acids by a	=	巴兰	111
	l	multienzyme reaction medeled after retroviral replication", PNAS, 87, (1990),pp.	9	AII TENTER	RECEIVED
	 	1874-1878		宫 一	111
<i>/</i> },	i	HAMILTON, H,et al., "C4-Substituted 1-beta-D-Ribofuranosylpyrazolo[3,4-	1	[편 · · ·	2
/ ///	}	d]pyrimidines as Adenosine Agonist Analogues", J. Med. Chem., 26 (11).			.) *******
- 04	 	(1993),pp. 1601-1606			٠٠٠ ا
\bigcirc .		HERRLEIN, et al., "57.3"-amino-modified nucleotides useful as potent chain	1		
1/1/2	1	terminators for current DNA sequencing methods*, Hety. Chim. Acta. 77.		1 3	
<u>"ų </u>	 	(1994),pp. 588-598 HOBBS, JR., FW. et al., "Palladium-catalyzed synthesis of alkynylamino		ا ئا	
Ou	1		l	-	
<u>. w</u>	L	nucleosides. A universal linker for nucleic acids", J. Org. Chem., 54, (1989),pp.		J	

EXAMINER DATE CONSIDERED 11/19/03

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Jezia Riley

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Initials*	Cita No 1	(book, magazine, journal, serial, symposium, catalog, etc.), data, page(s), volume-lesse number(s), publisher, city and/or country where published.	<u> </u>]	
		3420-3422]	
1		HOHEISEL, J.D., "Application of Hybridization Techniques to Genome Mapping]	
ill	<u> </u>	and", Trend in Genetics, 10 (3), (1994),79-83]	
110		HOLY, A.,et al., "Oligonucleotidic Compounds. XVII. Synthesis of		1	
M	Ì	Oligonucleotides Containing 6-Azauriding ad 6-Azacytidine", Collection		ł	
		Czechoslov, Chem, Commun., 32, (1967),pp. 2980-2997		ł	
		IZUTA, S.,,et al., "Chain Termination with Sugar-Modified Nucleotide Analogs in		Ì	
(fi	1	the DNA Synthesis by DNA Polymerase Y*, Nucleosides & Nucleotides, 15 (1-3),	ł	ļ	
0-	<u>i </u>	(1996),pp. 683-692]	
	Γ—	JOHNSON, WT. ,et al. ,"The Synthesis and stability of	l		
1	ł	oligodeoxyribonucleotides containing the deoxyadenosine mimic 1-(2'-deoxy-		,	
Pu	ļ	beta-D-ribofuranosyl)imidazole-4-carboxamide", Nucleic Acids Research, 25 (3),		ì	
	L	(1997),pp. 559-567]	
10.	1	KALLIONIEMI, A., et al., "Comparitive Genomic Hybridization for Molecular			
My		Cytogenetic", Science, 258, (1992),818-821	ļ		
/ 1.]	KHRAPKO, K.R.,et al., "An Oligonucleotide Hybridization Approach to DNA		ļ	
:14	Ļ	Sequencing", FEBS Letters, 256, (1989), 118-122		ĺ	
		KOHLER, P., et al., *284. Nucleoside und Nucleotide. Tell 15. Synthese von		ļ	
1/4	ļ	Desoxyribonucleosid-monophosphaten und -triphosphaten mit 2 (1 H)-		ł	
(lu	1	Pyrimidinon, 2 (1 H)-Pyridinon und 4-Amino-2 (1 H)-pyridinon als Basen",		ļ	
<u> </u>		Helvetica Chimica Acta, 63, (1980),pp. 2488-2494		1	
1	1	KUTATELADZE, T,et al., "3'-Deoxy-3'-aminonucleoside 5'-triphosphates	1		
(1/,		Terminators of RNA synthesis, catalyzed by DNA-dependent RNA polymerase		!	
· //L	<u> </u>	from Escherichia coll", FEBS Letters, 153 (2), (March 1983),pp. 420-426		1	
1		KWOH,et al., "Transcription-besed amplification system and detection of			
111	1	amplified human immunodeficiency virus type 1 with a bead-based sandwich		1	
Ja-	<u> </u>	hybridization format", PNAS, 86, (1989),pp. 1173-1177		i	
u		LANDEGREN,et al., "A ligase-mediated gene detection technique", Science,	I	AUG 19 705 1	RECEIVED
		241, (1988),pp. 1077-1080			m
M		LANGER,et al., "Enzymatic synthesis of biotin-labled polynucleotides: Novel	7	AUG 19 705	O.
M	L	nucleic acid affinity probes", PNAS, 78, (1981),pp. 6633-6637	1		m
1	Γ	LAZURKEVICH, ZV., et al., "Growth activity of 6-substituted azauracils",		1	areas
M	<u> </u>	Chemical Abstracts, 102 (25), Abstract No. 216761w, (1985),		阳。"	20
	T	LE BEC, C.,,et al., Derivatives of Imidazole-4-Carboxamide as Substrates for		i 🧎 🧵	. 574
Ja	•	Various DNA Polymerases", Nucleosides & Nucleotides, 167 (7-9), (1997),pp.	1	祭 - ユ	ا مس
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01		LIPSHUTZ, R.J., et al., "Using Oligonucleotide Prode Arrays to Access Genetic]	D/II
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		LOCKHART, D.J., et al., "Expression monitoring by hybridization to high-]	

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density", Nature Biotechnology, 14 (13), (1998),1675-1680 LUDWIG,et at., "Rapid and efficient synthesis of nucleoside 5'-O-(1-thiotriphosphates), 5'-triphosphates and 2',3'-cyclophosphorothioates using 2-chloro-4H-1,3,2-benzodioxaphosphorin-4-one", J., Org., Chem., 54, (1989),pp. 631-635 MiKKELSEN,et al., "Genetics of the malignant progression of astrocytoma", J., Cell. Biochem., 46, (1991),pp. 3-8 MIRKIN,et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-609 MISURA, K.,et al., "Biotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-6-aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, P.S., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobuty-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA,et al., "A general synthesis of Negvosides. I. Synthesis of pyrimidine nucleosides", J., Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, M.,et al., "Facile Perfluoralitytation of Uraciles and Unidines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A.,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Butletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomoleculer Structure, (1991),339-410	
thiotriphosphates), 5'-triphosphates and 2',3'-cyclophosphorothioates using 2-chloro-4H-1,3,2-benzodioxaphosphorin-4-one", J. Org. Chem., 54, (1989),pp. 631-635 MIKKELSEN,et al., "Genetics of the malignant progression of astrocytoma", J. Cell. Biochem., 46, (1991),pp. 3-8 MIRKIN,et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-609 MISURA, K.,et al., "Blotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and entiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, P.,S., et al., "Oligonucleotide labelling methods 3, Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA,et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3680 NISHIDA, M.,et al., "Facile Perfluoralitylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A.,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bloconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
thiotriphosphates), 5'-triphosphates and 2',3'-cyclophosphorothioates using 2-chloro-4H-1,3,2-benzodioxaphosphorin-4-one", J. Org. Chem., 54, (1989),pp. 831-835 MIKKELSEN,et al., "Genetics of the malignant progression of astrocytoma", J. Cell. Biochem., 48, (1991),pp. 3-8 MIRKIN,et al., "A DNA-based method for rationalty assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-609 MISURA, K., et al., "Blotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1988),pp. 809-816 NELSON, P., S., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosides." In Judgic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, M., et al., "Facile Perfluoralkytation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A., et al., "Alkynylation of Halopyridizaries and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d)pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
chloro-4H-1,3,2-benzodioxaphosphorin-4-one", J. Org. Chem., 54, (1989),pp. 631-635 MikkELSEN,et al., "Genetics of the malignant progression of astrocytoma", J. Cell. Biochem., 46, (1991),pp. 3-8 Mirkin,et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-609 MISURA, K.,et al., "Biotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1988),pp. 809-816 NELSON, P. S., et al., "Oligonucleotide labelling methods 3. Direct labeling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3854-3680 NISHIDA, M.,.et al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A., et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo (3,4-d)pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomoleculer Structure, (1991),339-410	
MIKKELSEN,et al., "Genetics of the malignant progression of astrocytoma", J. Cell. Biochem., 48, (1991),pp. 3-8 MIRKIN,et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-509 MISURA, K., et al., "Blotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research. 18 (15), (1990),pp. 4345-4354 MITCHELL, et al., "Synthesis and entiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, P.S., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, M., et al., "Facile Perfluoralkylation of National Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A., et al., "Alkynylation of Hatopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo (3,4-d)pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	_
Mikkelsen, et al., "Genetics of the malignant progression of astrocytoma", J. Cell. Biochem., 46, (1991),pp. 3-8 Mirkin, et al., "A DNA-based method for rationalty assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-609 Misura, K., et al., "Biotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 Mitchell, et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-6-aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 Nelson, Ps., et al., "Oligonucleotide labelling methods 3. Direct labeling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 Niedball, al., "A general synthesis of N-glycoskdes. I. Synthesis of pyrimkline nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3680 Nishida, A.,, et al., "Facile Perfluoralitylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A.,, et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 Petrile, et al., "A novel blotinylated adenylate analogue derived from pyrazolo (3,4-d)pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 Petvzner, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
Cell. Biochem., 46, (1991),pp. 3-8 MIRKIN,et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-609 MISURA, K., et al., "Biotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1988),pp. 809-816 NELSON, P.S., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA,et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3680 NISHIDA, M., et al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A., et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel blottinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
MiRKIN,et al., "A DNA-based method for rationally assembling nanoparticles into macroscopic materials", Nature, 382, (1996),pp. 607-609 MISURA, K.,et al., "Blotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1988),pp. 809-816 NELSON, PS., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA,et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, M.,et al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A.,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 348-3493 PETRIE,et al., "A novel blotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
macroscopic materials", Nature, 382, (1996),pp. 607-609 MISURA, K.,et al., "Biotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL, et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, PS., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimkline nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A.,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel blotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomoleculer Structure, (1991),339-410	
MISURA, K.,et al., "Biotinyl and phosphotyrosinyl phosphoramidite derivatives useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyl)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, PS., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of hydrosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A.,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	_
useful in the incorporation of multiple reporter groups on synthetic oligonucleotides", Nucleic Acids Research, 18 (15), (1990),pp. 4345-4354 MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyt)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, PS., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyt)-8-aza-2'-deoxyuridines", J. Chem. Med., 29, (1988),pp. 809-816 NELSON, PS., et al., "Oligonucleotide labelling methods 3. Direct labeling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralitylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A, et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel blotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bloconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
MITCHELL,et al., "Synthesis and antiviral properties of 5-(2-substituted vinyt)-8- aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, PS., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3- propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralitylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
aza-2'-deoxyuridines", J. Chem. Med., 29, (1986),pp. 809-816 NELSON, PS., et al., "Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
NELSON, PS. ,et al. ,"Oligonucleotide labelling methods 3. Direct labelling of oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al. ,"A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, M, et al. ,"Facile Perfluoralitylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A, et al. ,"Alkynylation of Halopyridazinas and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al. ,"A novel blotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bloconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A, et al. ,"Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
oligonucleotides employing a novel, non-nucleosidic, 2-aminobutyl-1, 3-propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimkline nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, M, et al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A, et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A, et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	_
propanediol backbone", Nucleic Acids Research, 20 (23), (1992),pp. 6253-6259 NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimkline nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
NIEDBALLA, et al., "A general synthesis of N-glycosides. I. Synthesis of pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE, et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
pyrimidine nucleosides", J. Org. Chem., 39, (1974),pp. 3654-3660 NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bloconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
NISHIDA, Met al., "Facile Perfluoralkylation of Uraciles and Uridines at the C-5 Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
Position", Journal of Fluorine Chemistry, 63, (1993),pp. 43-52 OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
OHSAWA, A,et al., "Alkynylation of Halopyridazines and Their N-Oxides", Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
Chemical & Pharmaceutical Bulletin, 28 (12), (Dec. 1980),pp. 3488-3493 PETRIE,et al., "A novel biotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", Bioconjugate Chem., 2, (1991),pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
PETRIE,et al., "A novel blotinylated adenylate analogue derived from pyrazolo [3,4-d]pyrimidine for labeling DNA probes", <u>Bloconjugate Chem., 2</u> , (1991).pp. 441-446 PEVZNER, P.A.,et al., "Improved Chips for Sequencing by Hybridization", Journal of Blomolecular Structure, (1991),339-410	
[3,4-d]pyrimidine for labeling DNA probes", <u>Bioconjugate Chem., 2</u> , (1991).pp. 441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
441-446 PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
PEVZNER, P.A., et al., "Improved Chips for Sequencing by Hybridization", Journal of Biomolecular Structure, (1991),339-410	
Journal of Biomolecular Structure, (1991),339-410	
Control of Stationary Control (100)	
PIRRUNG, et al., "A convenient procedure for the deprotection of silylated	
nucleosides and nucleotides using triethylamine trihydrofluoride", Bigra, Med.	
Chem. Lett., 4, (1994),pp. 1345-1348	
POCHET S. et al. "Ambiguous Base Pairing of 1-/2-Denov-heta-D-	
Ribofuranosyl) Imidazole-4-Carboxamide During PCR*, Nucleosides &	
Nucleotides, 16 (7-9), (1997),pp. 1749-1752	
	_
Imidazole-4-carboxamide, a simplified DNA building block*, Bloorg. Med. Chem.	
Imidazole-4-carboxamide, a simplified DNA building block*, <u>Bloorg. Med. Chem.</u> Lett., 5, (1995),pp. 1679-1684	
POCHET, S., et al., "Synthesis and enzymatic polmerisation of 5-amino-1-(2'-	
depxy-beta-D-ribofuranosyi) imidazole-4- carboxamide-5'-triphosphate", Nucleic	
Acids Research, 18 (23), (Dec. 11, 1990),pp. 7127-7131	

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M		Fluorescent Chain-Terminating Dideoxynucleotides", Science, 238, (Oct. 16, 1987),pp. 336-341	
Na		PRYSTAS, M.,,et al., "Nucleic Acids Components and their Analogues. CXXI. Glycosylation of 6-Azathymine by the Silylation Process", Collection Czechoslov. Chem. Commun., 34, (1969),pp. 1104-1107	
U		RIDEOUT, JL., et al., "Pyrazolo[3,4-d]pyrimidine Ribonucleosides as Anticoccidials. 2. Synthesis and Activity of Some Nucleosides of 4-(Alkylamino)-1H-Pyrazolo[3,4-d]pyrimidines", J. Med. Chem., 25 (9), (1982),pp. 1040-1044	
M		ROBINS, et al., "Nucleic acid related compounds. 42, A general procedure for the efficient deoxygenation of secondary alcohols. Regiospecific and stereoselective conversion of ribonucleosides to 2'-deoxynucleosides", <u>J. Amer. Chem. Soc.</u> , 105, (1983),pp. 4059-4065	
Pa		ROBINS,et al., "Potential purine antagonists. I. Synthesis of some 4,6-substituted pyrazolo [3,4-d]pyrimidines", <u>J. Amer. Chem. Soc., 78,</u> (1995),pp. 784-790	
/h		ROSEMEYER, H., et al., "Stereoelectronic Effects of Modified Purines on the Sugar Conformation of Nucleosides and Fluorescence Properties", Nucleosides & Nucleotides, 16 (5&6), (1997),pp. 821-828	
Zu		SALA, M,et al., "Ambiguous base pairing of the purine analogue 1-(2-deoxybeta-D-ribofuranosyl)-imidazole-4-carboxamide during PCR", Nucleic Acids Research, 24 (17), (1998),pp. 3302-3308	
U		SAMBROOK, et al., "Bacteriophage T4 RNA ligase (Bacteriophage T4-infacted E. coil)", in: Molecular Cloning: A Laboratory Manual, 2nd Edition. Cold Spring Harbor Laboratory Press, (1989), pp. 5.88-5.69	
Ou		SCHENA, M., et al., "Parallel human gemone analysis: Microarray-based expression", PNAS, 93, (1996),10614-10619	
a		SEELA, Fet al., *131. 8-Azs-7-deazs-2'-deoxyguanosine: Phosphoramidite Synthesis and Properties of Octanucleotides*, <u>Helvetica Chimica Acta, 71.</u> (1988),pp. 1191-1198	
au		SEELA, F,et al., "193. 8-Aze-7deazaadenine N8- and N9- (Beta-D-2"- Deoxyribofuranosides): Building Blocks for Automated DNA Synthesis and Properties of Oligodeoxyribonucleotides", Helvetica Chimica Acta, 71, (1988),pp. 1813-1823	
Ba		SEELA, F.,,et al., "Alternating d(G-C)3 and d(C-G)3 hexanucletides containing 7- deaza-2'-deoxyguanosine or 8-aza-7-deaza-2'-deoxyguanosine in place of dG", Nucleic Acids Research, 17 (3), (1989),pp. 901-910	
il		SEELA, F,et al., "Synthesis of 7-alkynylated 8-aza-7-deaza-2'- deoxyadenosines via the Pd-catalysed cross-coupling reaction", <u>J. Chem. Soc.</u> , Perkin Trans., 1, (1998),pp. 3233-3239	
111		SEELA, F., et al., "Synthesis of oligonucleotides containing pyrazolo[3,4-d]pyrimidines: The influence of 7-substituted 8-aza-7-deazaadenines on the	

EXAMINER DATE CONSIDERED

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caminer nitials*	Cite No 1	include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the form (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	**
U		duplex structure and stability, J. Chem. Soc., Perkin Trans., 1, (1999),pp. 479-488	
24		SOUTHERN, et al., "Analyzing and comparing nucleic acid sequences by hybridization", Genomics 1, (1992),1008-1017	
14		SOUTHERN, E.M., et al., "Arrays of complementary oligonucleotides for analysing the", Nucleic Acids Research, 22 (8), (1994),1388-1373	
M		STILLE, JK., et al., "Stereospecific Palladium-Catalyzed Coupling Reactions of Vinyl lodides with Acetylenic Tin Respents", Journal of the American Chemical Society, 109 (7), (April 1, 1987),pp. 2138-2152	
M		STIMPSON, D.I,et al., "Real-Time Detection of DNA Hybridization and Melting on oligonucleotide arrays by using optical wave guides", PNAS, 92, (1995),6379-6383	
Tu		TANJI, K.,,et al., "Studies on Pyrimidine Derivatives. XXVII. Synthesis of 2- and 4-Pyrimidinyl Ketones by Means of the Hydration of Alkynylprimidines", Chemical & Pharmaceutical Bulletin, 30 (5), (May 1982),pp. 1865-1867	
Pu		THEISEN, P.,,et al., "Fluorescent Dye Phosphoramidite Labelling of Oligonucleotides", Nucleic Acids Symposium Series, 27, (1992),pp. 99-102	
W		UHLENBECK,et al., "T4 RNA ligase". In: The Enzymes, XV, Nucleic Acids, Part B, Boyer, P.D., (Ed.), Academic Press, (1982), pp. 31-58	
M		WAGES, JM., et al., "High-Performance Liquid Chromatography Analysis of PCR Products", In: PCR Strategies, Chapter 11, Academic Press, Inc., (1995),pp. 140-153	
Ju		WANG,et al., "Large-scale identification, mapping, and genotyping of single-nucleotide polymorphisms in the human genome", <u>Science</u> , 280, (1998),pp. 1077-1082	
U		WOJCZEWSKI, C,et al., "Synthesis and Application of 3'-Amino-Dye- Terminators for DNA Sequencing", Nucleosides & Nucleotides, 16 (5-6), (1997),pp. 751-754	
Ou		WU,et at., "The Ligation amplification reaction (LAR) - Amplification of specific DNA sequences using sequential rounds of template-dependent ligation", Genomics, 4, (1989),pp. 580-589	
M		YU,et al., "Cyanine dye dUTP analogs for enzymatic labeling of DNA probes", Nucleic Acids Research, 22, (1994),pp. 3226-3232	
M		ZHU, Z., et al., "Direcity labeled DNA probes using Fluorescent nucletides with different length linkers", Nucleic Acids Research, 22 (16), (1994),pp. 3418-3422	

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